RESIDENTIAL LIGHTING PROGRAMS
PG&E's ROLE & PERSPECTIVE

CALIFORNIA ENERGY COMMISSION
Joint Committee Workshop on Policies to Improve Residential Lighting Efficiency in California
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PURPOSE:

This paper is intended to outline why PG&E is pursuing Public Purpose Integrated Demand Side Management Programs (including energy-efficiency), what it perceives its role to be relative to others, and to some extent how it chooses and addresses opportunities.

UTILITY ROLE:

The State's Investor Owned Utilities are charged by the CPUC to make energy efficiency the number 1 priority in the loading order and meet much of their growth in electricity demand through Integrated Demand Side Management efforts.

Lighting constitutes about 1/3 of the electric energy use in the state and country. Consequently is constitutes a significant opportunity for cost-effective energy savings.

In response to that opportunity, the Utilities have intensified their long-standing, comprehensive energy efficiency improvement effort, which collaborates with and compliments other efforts, such as those of research, educational, state, local, and national government institutions.

This Utility Statewide Integrated Demand Side Management program (incorporating energy efficiency, demand response, and renewables) follows CEC PIER leads and addresses the lighting opportunity through information, education, emerging technologies, market focused incentive programs, and advocacy for improved building and appliance efficiency codes & standards

PG&E considers opportunities to address and methods of influence based on market and product planning. Since this Joint Committee Workshop is addressing the Residential Market, the Product Plan presented here is focused on that market sector.

Specific Utility Advocacy activities are driven by these Product Plans. This one is organized by lighting technology as may be utilized in new buildings and all product sales within the state. The model being followed is that CEE PIER work leads to Utility ET, leading to education & incentive programs (working with the *Consortium for Energy Efficiency* and *Energy Star*), which lead to codes & standards advocacy efforts at the State and Federal level.

There is a special opportunity for utilities to support high-efficiency products by easing their market introduction and facilitating their use before code mandated effective dates, where significant efficiency improvement can be realized.

REPRESENTATIVE PLAN FOR RESIDENTIAL LIGHTING MEASURES:

TECHNOLOGY	PIER	ET	INFORMATION /ENERGY STAR	REBATES	C&S	Notes
Incandescent General Service	None	None	None (Energy Star is concerned that support for improved incandescent lamps will detract from the preferred status of CFLs. We believe that a 2 Tiered, or better & best presentation can be readily understood by customers)	None, but Opportunity for Rebates for Greatly Improved Lamps Exists Until Standards Take Effect	• Tier I California Standards in Effect • Tier II Pending; • Further Advocacy & Regulatory Activity Pending	Opportunity for 30% Improvement Through 2 Different Technologies, To Be Introduced in Different Product Categories Over Time
ER & BR	None	None	None	None	Federally Preempted	This needs to be corrected
PAR	None	None	None	None, but Opportunity for Halogen IR rebate	• Halogen Required • Federally Preempted	
R Lamps	None	None	None	None	Federally Preempted	Have essentially been replaced by ER & BR lamps in the market
Specialty (Candelabra / Nightlights)	None	None	None	• Upstream Rebates for Some High Efficiency Nightlights • Cold Cathode CFL Rebate Being Considered	California Standards Advocacy for Night Lights Pending	
CFL	None	None	Energy Star CFL Spec, considering dimmable and power quality issues	Massive upstream rebates	California pin based requirement for residential new construction	50% connected Wattage or dimmer for kitchens, bathrooms, utility rooms

Linear Fluorescent	None	None	Energy Star Residential Fixture Spec	None	Federally Preempted	
HID	None	None	None	Rebates for exterior HID	• California requires pulse start and ballast efficiency • 10 Other states copied California's pulse start requirements • Under discussion at the Federal Level	
CMH	None	None	None	None for Residential	None for Residential	
LED	?	Projects under discussion	Spec under discussion	Rebates for LED Signs Rebates for LED Residential fixtures under consideration	Standards for signs being advocated in T 24 Process	
HARDWIRED FIXTURES	CLTC?	None		Rebates for Various Indoor & Outdoor Fixtures	T 24 Standards Requiring Hardwired Pin Based Fluorescent Fixtures	

CONCLUSION:

General Service lighting programs form the backbone of utility portfolio energy savings. These programs are highly cost-effective, supporting many highly desired, but less cost-effective energy-efficiency efforts across the full range of market and technical opportunities. Public policy makers must offer good policies and careful guidance that provides for continued energy-efficiency improvement, while continuing to properly recognize and value the large savings realized.

Utilities are scanning the residential general service lighting market and technology for energy-efficiency improvement opportunities that may be supported by cost-effective public-purpose energy-efficiency programs. There are many promising technologies for improvement, but consumer information, education, and incentive program support are key in creating demand which makes these improved products viable from the perspective of the retailers and manufacturers. Energy efficiency regulations (codes & standards) have the potential to bring dramatic improvements at least-cost to residential general service lighting. Such regulations can be disruptive to large manufacturer's market positions and must be developed thoughtfully.

Thoughtful coordination of advocacy efforts, across the range of R&D, ET, Information, Incentive, and Codes & Standards will produce the best energy-efficiency improvement results and value for society.